

Package ‘shinyTempSignal’

March 6, 2024

Title Explore Temporal and Other Phylogenetic Signals

Version 0.0.8

Description

Sequences sampled at different time points can be used to infer molecular phylogenies on natural time scales, but if the sequences records inaccurate sampling times, that are not the actual sampling times, then it will affect the molecular phylogenetic analysis. This shiny application helps exploring temporal characteristics of the evolutionary trees through linear regression analysis and with the ability to identify and remove incorrect labels. The method was extended to support exploring other phylogenetic signals under strict and relaxed models.

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Depends R (>= 3.3.0)

Imports ape, forecast, ggplot2, ggprism, ggpmisc, ggtree, golem (>= 0.3.1), shiny (>= 1.6.0), shinydashboard, shinyjs, shinyWidgets, stats, treeio, yulab.utils (>= 0.1.4), nlme

Suggests attempt, conflicted, config (>= 0.3.1), glue, htmltools, knitr, prettydoc, processx, rmarkdown, testthat (>= 3.0.0)

VignetteBuilder knitr

Encoding UTF-8

RoxygenNote 7.3.1

Config/testthat/edition 3

URL <https://github.com/YuLab-SMU/shinyTempSignal>,
<https://www.sciencedirect.com/science/article/pii/S167385272400033X>

BugReports <https://github.com/YuLab-SMU/shinyTempSignal/issues>

NeedsCompilation no

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app_server	<i>The application server-side</i>
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Description

The application server-side

Usage

```
app_server(input, output, session)
```

Arguments

input	Internal parameter
output	Internal parameter
session	Internal parameter

app_ui	<i>The application User-Interface</i>
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Description

The application User-Interface

Usage

```
app_ui(request)
```

Arguments

request	Internal parameter
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dateNumeric	<i>Convert dates according to date format</i>
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Description

Convert dates according to date format

Usage

```
dateNumeric(date, format)
```

Arguments

date	input a data extracted from labels, character
format	input format of the date, character

Value

Returns a date of numeric type, numeric

Examples

```
dateNumeric(date = "1999-12-07", format = "yyyy-MM-dd")
```

MCC_FluA_H3_tree	<i>Example data: a tree of 76 H3 hemagglutinin gene sequences of a lineage containing swine and human influenza A viruses</i>
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Description

This example data was reported on Liang et al. 2014

Format

a tree with 76 sequences

Value

a tree, phylo

Examples

```
data(MCC_FluA_H3_tree)
```

run_shinyTempSignal *Run the Shiny Application*

Description

Run the Shiny Application

Usage

```
run_shinyTempSignal(
  onStart = NULL,
  options = list(),
  enableBookmarking = NULL,
  uiPattern = "/",
  ...
)
```

Arguments

onStart	A function that will be called before the app is actually run. This is only needed for shinyAppObj, since in the shinyAppDir case, a global .R file can be used for this purpose.
options	Named options that should be passed to the runApp call (these can be any of the following: "port", "launch.browser", "host", "quiet", "display.mode" and "test.mode"). You can also specify width and height parameters which provide a hint to the embedding environment about the ideal height/width for the app.
enableBookmarking	Can be one of "url", "server", or "disable". The default value, NULL, will respect the setting from any previous calls to enableBookmarking() . See enableBookmarking() for more information on bookmarking your app.
uiPattern	A regular expression that will be applied to each GET request to determine whether the ui should be used to handle the request. Note that the entire request path must match the regular expression in order for the match to be considered successful.
...	arguments to pass to golem_opts. See <code>‘?golem::get_golem_options’</code> for more details.

Value

Shiny application object

Examples

```
if (interactive()) {
  run_shinyTempSignal()
}
```

`shinyTempSignal_set_theme`
shinyTempSignal_set_theme

Description

set default theme

Usage

`shinyTempSignal_set_theme(theme)`

Arguments

theme a ggplot theme

Value

No value return

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* data

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